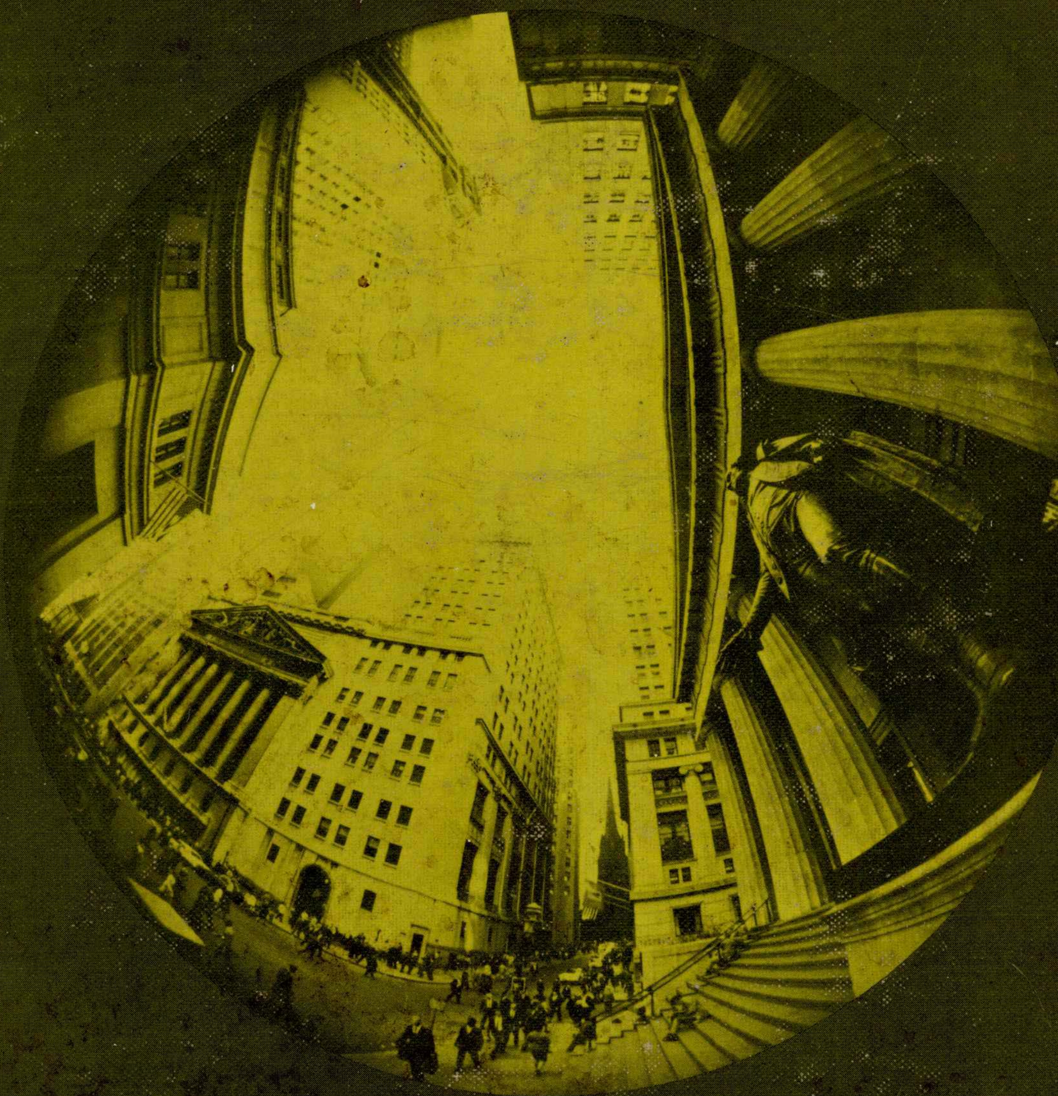

THE FOUNDATIONS OF MONEY AND BANKING

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The FOUNDATIONS of MONEY and BANKING

To the Meddlers

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Preface

Carl Sandburg once wrote a poem about a consumer who knows that every cigarette is better than every other cigarette. It is, therefore, with some diffidence that we write the usual preface explaining why this book is better than every other book in its field. We really believe, however, that this book has substantial advantages over its competitors.

In 1860, the Currency–Banking–School controversy was for all practical purposes ended and there was general agreement that whatever serves as a medium of exchange is money, and that money codetermines the major macroeconomic variables. The logical chain for determining the effect of money on the economy was then clear-cut: (a) economic theory defined money, (b) statisticians were assigned the task of applying the definition and quantifying money, and (c) empirical research then explored the relationship, if any, between money on the one hand and prices and income on the other. However, within 100 years the links in this clear-cut chain had reversed themselves so that the effect of "money" on the economy became an accepted method for defining what was, and what was not, money. In particular, a relationship between money and the level of prices and income was first postulated. Then the dependent variables (price and income) were correlated with a variety of aggregates containing the medium of exchange *and* other assets. Money was then defined as the aggregate that maximizes the correlation.

Clearly, money has lost its analytical meaning. Irrespective of the name that may be given to the aggregate chosen, money has been replaced by something called "liquid assets"—a heterogeneous group of assets with a so-called high degree of "moneyness."

At the root of this remarkable reversal is the belief that money is a debt of its producer. Because other financial assets are also debts of their producers, e.g., the government and corporations that issue bonds, they cannot be distinguished, on analytical grounds, from money. Thus, if a distinction is to be made, it must be made on the basis of the behavior of the community. That is, if the distinction cannot be made on a theoretical basis, then it must be made on an empirical basis.

These developments have caused serious difficulties for writers of textbooks on money and banking. Because liquidity is a continuum, with currency on one end and the Brooklyn Bridge on the other, the only limit to coverage was provided by the requirement that a textbook should have between 400 to 800 pages. A course in money and banking came to encompass media of exchange, debts and debt management, fiscal policy, intermediation, pension and trust funds, nominal debt issues of nonfinancial institutions, and even nominal debt issues of individual spending units. Inevitably, a student of money and banking became a jack of all trades and a master of none. More importantly, this approach gave the professor the unenviable task of explaining to the irreverent college student that a five-dollar bill that entitles him to five one-dollar bills was a debt that the government owed him. We say "unenviable" because the principle that all money is "an *IOU* even though there is nothing that it promises to pay, no interest to yield, and no maturity date" could be memorized but never understood. The difficulty also carried over to the macroeconomic sections because it was not easy to explain why an asset that is fully offset by a liability should have any consequences on income, employment, and price level.

We avoid these problems by making use of the economic theory of value to restore the distinction between money and debts. Through this approach, money is shown to be an asset that is not a debt of its issuer. Since this whole approach is new and different, it takes some getting used to. The approach, however, pays large dividends, and this is the first undergraduate text that makes use of it.

One of the primary dividends of our approach is that the analysis of money can be (actually must be) handled by the conventional tools of price theory as taught in principles of economics. Similarly, the analysis of the institutions producing money becomes no different from the analysis of firms producing any other good. Thus, this book simply picks up where *Principles of Economics* leaves off; the usual discontinuity disappears. It is for this reason that we have titled the book *The Foundations of Money and Banking*. We are convinced that any student who has mastered a basic course in principles of economics will find the task of application of the analytical methods already learned to money, and to the money industry, very easy. However, and this point deserves emphasis, the tool requirements for our approach to the analysis of money are so modest that even a student approaching economics for the first time should find it easy to acquire the limited kit of tools needed.

The new analytical simplicity permits, but does not require, a new organization of the whole subject of money and banking. In Part II, the student is given a brief introduction, or refresher as the case may be, into the elementary tools of economic analysis and accounting needed in the following parts. In Part III, we use these tools for an equally brief discussion of *the theory of money*. In Part IV, we get to the core of the course in money and banking. Here we discuss, using the standard tools of theory of the firm, the individual

firms (the commercial banks) that make up the money industry. Not only does the student become familiar with the structure of a bank and the banking industry, but he learns why banks behave as they do. In the crucial chapters that deal with the banking industry, we introduce a geometrical interpretation of the standard equations specifying the money-expansion power of the commercial banks and of the system as a whole. Experience indicates that this geometrical interpretation greatly enhances the ability of the average college student—frequently hesitant to use mathematics—to understand the basic principles involved.

The very same analytical simplicity that sharply defines money has its counterpart. It makes it possible to define no less sharply, in Part V, the financial assets of the community that are not money, i.e., debts of various types. Although the importance of credit is stressed both in Chapter 3 and in Part VI, the innumerable uses to which money is put, and the extremely dishomogeneous financial and semifinancial institutions that facilitate credit, receive only as much attention as is expedient in a book of manageable size.

With money being a resource, and the reciprocal of its price being the general price level, the discussion of the money industry in the first half of the book naturally broadens in Part VI into a discussion of the economy as a whole, and of the effects that the actions of the money industry have on this economy. Our only innovation in the macroeconomic section is that we have excluded discussion of several special cases which by now, in our opinion, are merely of historical interest. In this day of complex models and of computers to solve them, it seemed dated to dissipate the reader's energy on cases in which income, employment, and price level either depend on government expenditures and nothing else, or on the quantity of money and nothing else. Although any one of these simplifications may have been a useful, elementary teaching device when stated in isolation, discussion of several of these simplifications simultaneously leads the unsophisticated beginner to the erroneous conclusion that he is facing two *competing* theories of the economy rather than two *alternative* and equally inadequate ways of simplifying our complex world.

The treatment of money as a product of the money industry greatly facilitates the explanation of the structure of the macroeconomic model on this elementary level. It becomes easy to explain and, for the student, easy to understand why special attention is focused on the market of currently produced goods and services ("the commodity market") and on "the money market." Indeed, teaching macroeconomics in the context of a money and banking course has some advantages. In particular, the scope of this course requires that explicit and detailed attention be paid to credit markets (the lease and rental market in the case of nonmoney goods and "the bond market" in the case of money), which, though important, are left in the background in a course strictly devoted to macroeconomics.

In Part VII, we use the analysis that the student has learned to discuss the history of money and banking in the United States. Here we concentrate on

showing the student the usefulness of the analysis that he has mastered by applying it to real-life examples. In particular, we pay close attention to the effects of post-World War II monetary history and the impact of the Federal Reserve System on the level of prices and income during this period. We have found that this type of analysis takes the material learned out of the realm of the abstract and shows the student that his time has not been idly spent.

If limited consumer tests are any guide, the students' reception of this approach to money, the money industry, and the role this industry plays in the economy is excellent. They like the continuity in the analytical tools used in principles of economics and in money and banking. They understand better than before *what* they are studying and *why* they are studying it, and do not get lost in the mass of dishomogeneous assets and debts. It was this encouraging response that makes us feel that, pedagogically, we are on the right track and that makes it so stimulating to assume the responsibility of writing an undergraduate textbook. We can only hope that we will leave an imprint of the intellectual adventure of recasting an important course on our book and thus stimulate both the professors and the readers to share it with us.

In the writing of this book, we were greatly helped by colleagues who read the various drafts of the manuscript or tested parts of it in class, and by the students who dislike struggling with obscurity and theoretical niceties irrelevant for a beginner. Our thanks go especially to Professors Lawrence S. Ritter, Michael DePrano, William R. Russell, Peter J. Lloyd, and Roy Gilbert. They all made valuable suggestions and, if we did not accept all of them, the fault is ours, not theirs.

Finally, we reach the contribution made to our work by Mrs. Alice Semrau. She guided the compilation of the manuscript from inception to completion and relieved us of the burdens of innumerable editorial decisions. Throughout our years of collaboration, she has been a trusted co-worker and a friend.

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